

WHAT IS CLAIMED IS:

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1. An image collection apparatus comprising:
an image acquisition unit which acquires an image;
an event detection unit which detects an event based on
5 the image;

an event data creation unit which creates event data
indicative of at least a generation time and contents of the
event detected by said event detection unit;

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a macro event definition unit which defines a macro event
10 including a related event group and having a time width by using
the generation time and contents of the event;

a macro event data creation unit which creates macro event
data by structurizing a plurality of event data generated by
said event data creation unit based on definition contents of
15 the macro event defined by said macro event definition unit;

an image recording unit which records an image of a macro
event corresponding to the macro event data;

a retrieval unit which retrieves a desirable macro event
based on the macro event data; and

20 a display unit which acquires at least an image of the
macro event retrieved by said retrieval unit from said image
recording unit and displays the image.

2. The image collection apparatus according to claim 1,
25 further comprising a temporary storage unit which temporarily

stores the image acquired by said image acquisition unit,

wherein said image recording unit extracts and records an image related to an event detected by said event detection unit from the image temporarily stored by said temporary storage unit.

3. The image collection apparatus according to claim 1, wherein said macro event definition unit carries out definition including repetition of a predetermined event in a series of events constituting the macro event.

4. The image collection apparatus according to claim 1, further comprising an image summary unit which selects an image in a predetermined portion of the image of the macro event and summarizes the image of the macro event,

wherein said image recording unit records the image of the macro event summarized by said image summary unit.

5. The image collection apparatus according to claim 1, further comprising an image summary unit which selects an image in a predetermined portion of the image of the macro event, periodically acquires a static image from a non-selected image of the macro event and connects the selected image with the static image on a time basis, thereby summarizing the image of the macro event, said image recording unit recording the image

of the macro event summarized by said image summary unit.

6. The image collection apparatus according to claim 1,
further comprising a measurement unit which measures data
5 related to the image; and

a measured data storage unit which stores the measured data acquired by said measurement unit in relation to the macro event,

wherein said display unit displays the image of the macro
10 event and displays the measured data related to the macro event.

7. The image collection apparatus according to claim 1,
further comprising a plurality of image acquisition devices,

wherein said image recording unit selects one of said
15 image acquisition units corresponding to the image of the macro
event from a plurality of images input from said image
acquisition units and records, as the image of the macro event,
the image input from said selected image acquisition unit.

20 8. The image collection apparatus according to claim 1,
further comprising an analysis unit which carries out a
predetermined analysis processing based on at least the image
of the macro event.

25 9. An ~~image~~ collection method comprising:

an acquiring step of acquiring an image and detecting an event;

an event data creating step of creating event data indicative of at least a generation time and contents of the event detected at said acquiring step;

a macro event data creating step of creating macro event data by structurizing a plurality of event data generated by said event data generation unit based on macro event definition contents defining a macro event including a related event group and having a time width;

an image recording step of recording an image of a macro event corresponding to the macro event data;

a retrieving step of retrieving a desirable macro event based on the macro event data; and

a displaying step of acquiring an displaying at least the image of the macro event retrieved at said retrieving step.

10. The image collection method according to claim 9, further comprising a temporary storing step of temporarily storing the image acquired at said acquiring step,

wherein in said image recording step an image related to an event detected at said acquiring step is extracted from the image temporarily stored at said temporary storing step and recorded.

11. The image collection method according to claim 9, wherein
said macro event creating step creates macro event data based
on the macro event definition contents defined including
repetition of a predetermined event in a series of events
5 constituting the macro event.

12. The image collection method according to claim 9, further
comprising an image summarizing step of selecting an image in
a predetermined portion of the image of the macro event and
10 summarizing the image of the macro event, said image recording
step recording the image of the macro event summarized at said
image summarizing step.

13. The image collection method according to claim 9, further
15 comprising an image summarizing step of selecting an image in
a predetermined portion of the image of the macro event,
periodically acquiring a static image from a non-selected image
of the macro event and connecting the selected image with the
static image on a time basis, thereby summarizing the image of
20 the macro event, said image recording step recording the image
of the macro event summarized at said image summarizing step.

14. The image collection method according to claim 9, further
comprising:
25 a measuring step of measuring data related to the image;

and

a measured data storing step of storing the measured data acquired at said measuring step in relation to the macro event,

said displaying step displaying the image of the macro event and displaying the measured data related to the macro event.

15. The image collection method according to claim 9, wherein said image recording step selects one of the images corresponding to the image of the macro event from a plurality of input images and records the selected image as the image of the macro event.

16. The image collection method according to claim 9, further comprising an analyzing step of carrying out a predetermined analysis processing based on at least the image of the macro event.